

Edexcel Biology

International A-level

CP 13 - Growth of microorganisms in
liquid culture
Flashcards



How can a colorimeter be used to measure the rate of growth of microorganisms?



How can a colorimeter be used to measure the rate of growth of microorganisms?

As microorganisms increase in solution, the turbidness of the solution increases, less light passes through and absorbance increases.



How can a light sensor be used to measure the rate of growth of microorganisms?



How can a light sensor be used to measure the rate of growth of microorganisms?

Set up the microorganism culture between a light source and light sensor. As microorganisms increase, the turbidness of the solution increases, less light passes through and is detected by the sensor.



How is the growth rate of the microorganism measured?



How is the growth rate of the microorganism measured?

Transfer a sample from the microorganism culture to a cuvette at intervals, or use a datalogger to continuously record absorbance.



As the age of the culture increases, how does the absorbance vary?



As the age of the culture increases, how does the absorbance vary?

The absorbance increases to a maximum, then remains constant.



How can a cell count be found?



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Stain the yeast suspension with methylene blue and view in a haemocytometer to find the cell density. Multiply cell density by total volume for cell count.



State the hazards and safety precautions involved in this practical.



State the hazards and safety precautions involved in this practical.

Yeast may cause an allergic reaction.

Avoid contact with skin, use aseptic techniques.

